

# Renovating Your Home Safely

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**Massachusetts Department of Public Health  
Childhood Lead Poisoning Prevention Program (CLPPP)**



## **lead paint danger**

**Homes built before 1978** may contain lead paint. Renovation or repair work on these homes can create lead dust, fumes, and debris. This may cause lead poisoning in children and adults.

Children under the age of six are at the highest risk for lead poisoning. In young children, too much lead in the body can cause serious harm to the brain, kidneys, nervous system, and red blood cells. Even small amounts of lead can cause learning and behavioral problems. Lead can also harm a child before birth.

High lead levels in adults can cause health problems including high blood pressure, headaches, memory and concentration problems, kidney damage, mood changes, sleep problems and muscle or joint pain.

## **protect your family or tenants from lead poisoning during renovation work**

People who are not doing the work should not be in the house. Children and pregnant or nursing women especially, should not go in the work area until after it has been properly cleaned. Keep pets away from the work area, too.

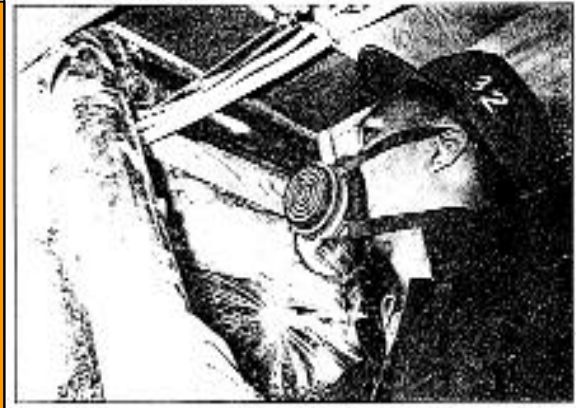
If you hire other people to do renovation work, they should understand that this work can cause lead poisoning. They should agree to protect your family or tenants from lead poisoning by following the tips in this brochure and cleaning properly after the work is done.

### **Renovating and deleading: the differences you should know**

**Renovation** is work done to repair, improve, remodel, or do other work on the home. This work is not done to achieve compliance with the Lead Law.

**Deleading** is work done to remove or cover surfaces or other material known, suspected, or assumed to contain dangerous levels of lead. The purpose of this deleading work, in whole or in part, is done to achieve compliance with the Lead Law.

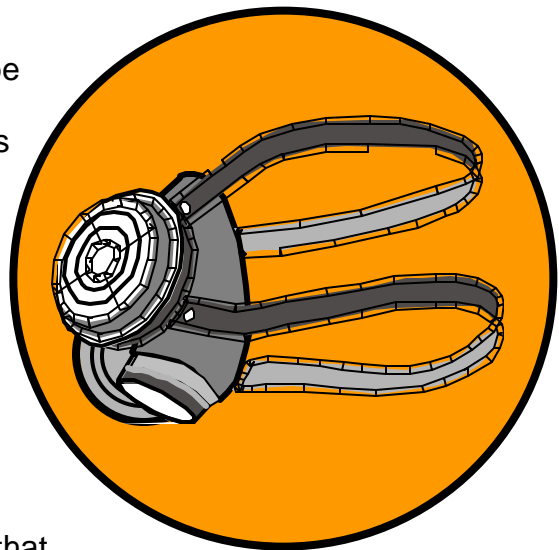
# safety guidelines



## NIOSH/MSHA Respirator

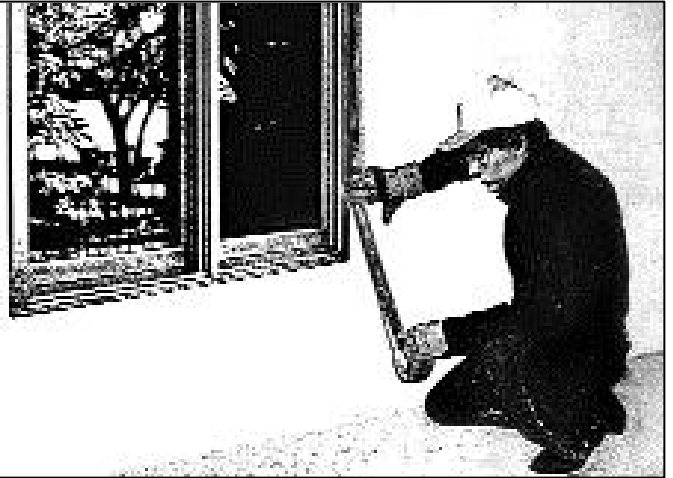
## EQUIPPED WITH HEPA CARTRIDGE

Lead is most hazardous in dust form. You should be concerned about lead paint hazards if you will be disturbing lead painted surfaces. Work that disturbs lead paint includes removing paint, sanding, patching, scraping, or tearing down walls. It also includes removing or replacing windows, baseboards, doors, plumbing fixtures, heating and ventilation ducts, or electrical systems. Assume that all paint is lead paint unless you know that it does not contain lead. Federal and state law requires anyone doing the work to follow these safety guidelines:



- No one less than 18 years of age can do work that disturbs lead paint
- Wear a respirator which is NIOSH/MSHA approved and equipped with a HEPA cartridge. (The cartridges are usually purple and say HEPA or VEPA on them.)
- A paper mask will not protect you against lead dust or fumes.
- Wear safety goggles and gloves
- Do not eat, drink, chew gum or tobacco, or smoke in work areas

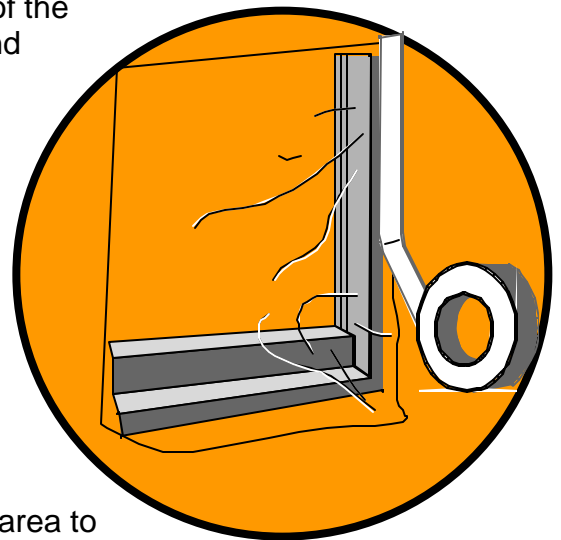
# tips for interior work



## Duct or masking tape

### TO SEAL HOUSE WITH HEAVY PLASTIC

- Work in one room at a time. Seal it off from the rest of the house with plastic sheeting. Close doors/windows and tape heavy plastic around them. Tape heavy plastic over heating ducts, vents and grates, and shut down ventilation systems.
- Protect all food, appliances, utensils, furniture, personal items, bedding, drapes, toys, and clothing from dust. Remove them from the work area, or cover/bag them in heavy plastic and seal tightly.
- Cover floors and carpets with heavy plastic and seal the edges with tape.
- Place a damp floor mat outside the door to the work area to wipe off dust from the bottom of shoes.
- Do not walk in and out of the work area often. Have everything you need before you start working.



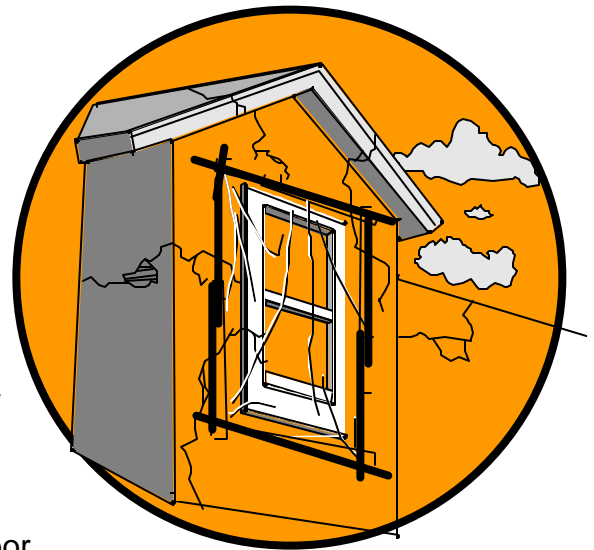
# tips for exterior work



## Cover windows with plastic

### SEAL THE EDGES AIRTIGHT WITH TAPE

- Tape a drop cloth or tarp to the base of the building and hold it down with something heavy. It should extend far enough out from the building to catch any falling debris.
- Cover vegetable gardens and play areas with tarps or dropcloths. This will prevent lead from getting into the soil.
- Move or cover sandboxes, play equipment, and outdoor furniture.
- Close windows (including storms), doors, and vents so dust cannot enter the home. Cover them with plastic and seal the edges with tape if they are not airtight.
- Remove work clothes and shoes before entering the home.
- Do not work on windy days to prevent paint chips and debris from spreading into other areas.
- Keep children and pets away from the work area.
- Avoid the use of power sanders and heat guns.
- Contact your local board of health for the local regulations you should be following.



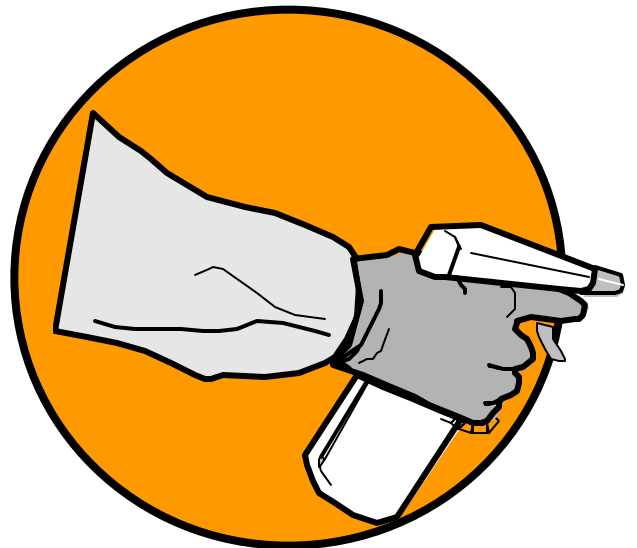
# Additional Safety tips



## Spray Bottle

TO WET-MIST SURFACES

- Do the work while the home is vacant
- Wet-mist painted areas with a spray bottle or hose before working on them to reduce dust
- Wash hands before eating, drinking, or smoking



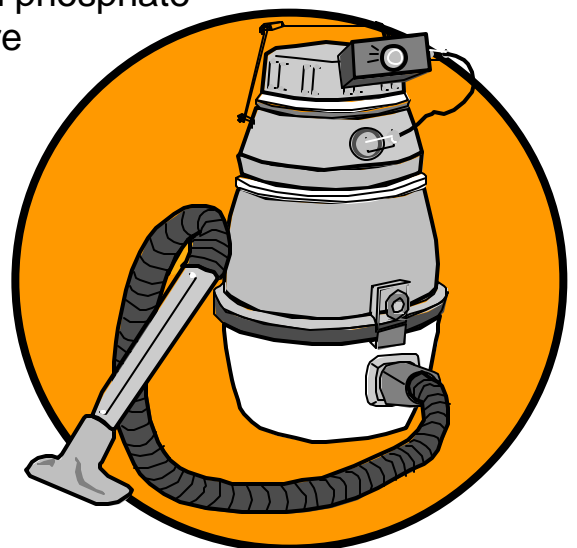
# WORKSITE CLEANUP TIPS



## Spray Bottle

### EQUIPPED WITH HEPA FILTER

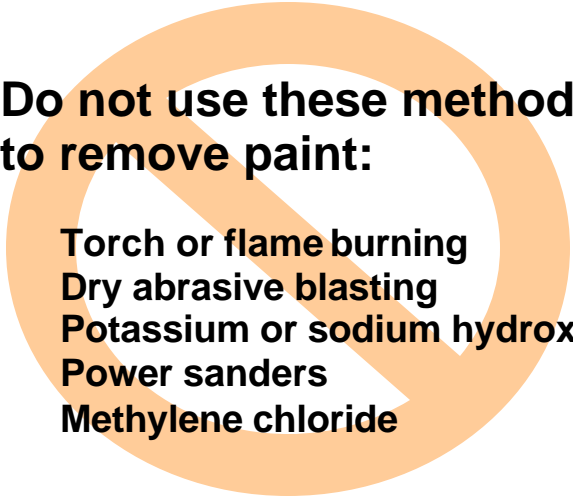
- Completely clean work areas at the end of each day. Repeat the full cleanup 24 hours after all the work has been done. This gives the dust time to settle.
- Vacuum floors and other surfaces with a HEPA filtered vacuum only. Do not use household vacuums. They spread lead dust into the air. To find out where you can rent a HEPA vacuum, call 1-800-532-9571.
- Wet wash all surfaces with tri-sodium phosphate (TSP) or an automatic dishwasher detergent high in phosphate. Most hardware stores sell TSP.
- Clean all tools and equipment with tri-sodium phosphate (TSP) or vacuum with a HEPA vacuum before taking them out of the work area.
- Collect all debris at the end of each day. Double bag it in heavy plastic bags and throw it out with the regular trash. Store it safely until it can be disposed
- (Contact the Department of Environmental Protection for more information 617-292-5838).



## personal cleanup tips

- Change your work clothes and shoes before you leave the work site.
- Shower and wash your hair as soon as possible after you are done working.
- Wash your work clothes separately from other clothes.

### Do not use these methods to remove paint:



**Torch or flame burning**  
**Dry abrasive blasting**  
**Potassium or sodium hydroxide solutions**  
**Power sanders**  
**Methylene chloride**

### **CASE STUDY:**      **Renovation project poisons child**

A young couple about to have their first child decided that they wanted to redo a bedroom in their home for the baby. They wanted this room to be very special, so they completely remodeled it. They patched and repainted the walls, and enlarged the closet. They even scraped all the old paint off the window and door frames to return the wood to its original condition. They were almost finished with the room when the baby was born.

By the time their daughter had her first lead test at nine months of age, she already had a high lead level. The nurse at the clinic thought the high lead level might have been from all the dust created when they were working on the baby's room. She suggested that they have a lead inspection done. The inspector found that most of the paint in their home was lead paint. The lead dust created during the remodeling project was never properly cleaned up and caused the child to be lead poisoned. The mother may also have inhaled lead dust while she was working before the baby was even born. This may have caused some of the lead in the baby's system, too.

**For more information on lead poisoning, inspections, or HEPA vacuum rentals  
contact:**

**Massachusetts Department of Public Health  
Childhood Lead Poisoning Prevention Program (CLPPP)  
1-800-532-9571  
[www.magnet.state.ma.us/dph](http://www.magnet.state.ma.us/dph)**